Dimplex

Langbrook 5kW (LBK5)

Please hand these instructions to the stove user when installation is complete.
Leave the system ready for operation and instruct the user in the correct use of the appliance and operation of controls.

Installation should only be carried out by a suitably qualified installer that is registered with HETAS (UK) or with the Irish Nationwide Fireplace Organisation (INFO).
Installation must comply with Building Regulations.

08/51568/0 - Issue 2

The product complies with the European Safety Standards EN13240 for Room heaters fired by solid fuel.

1

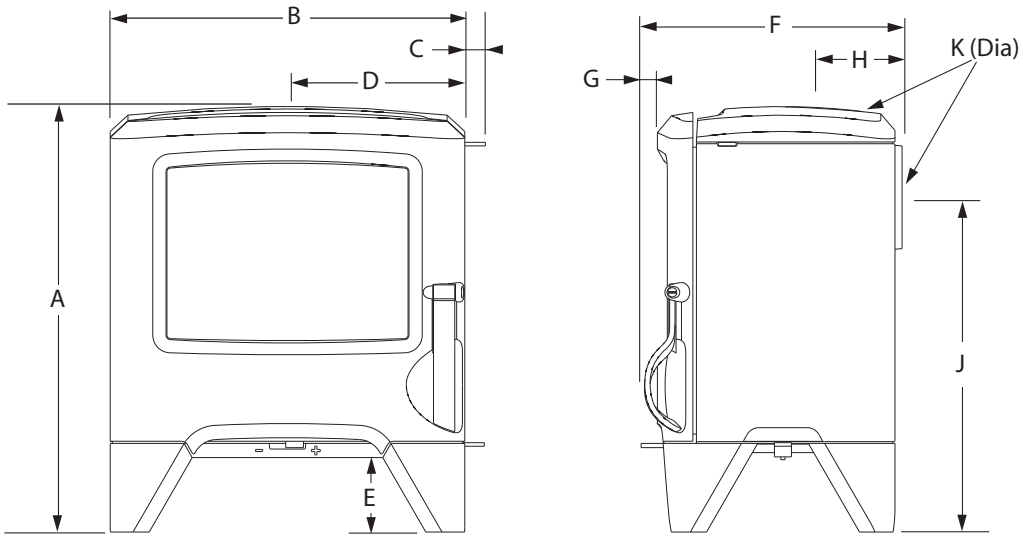
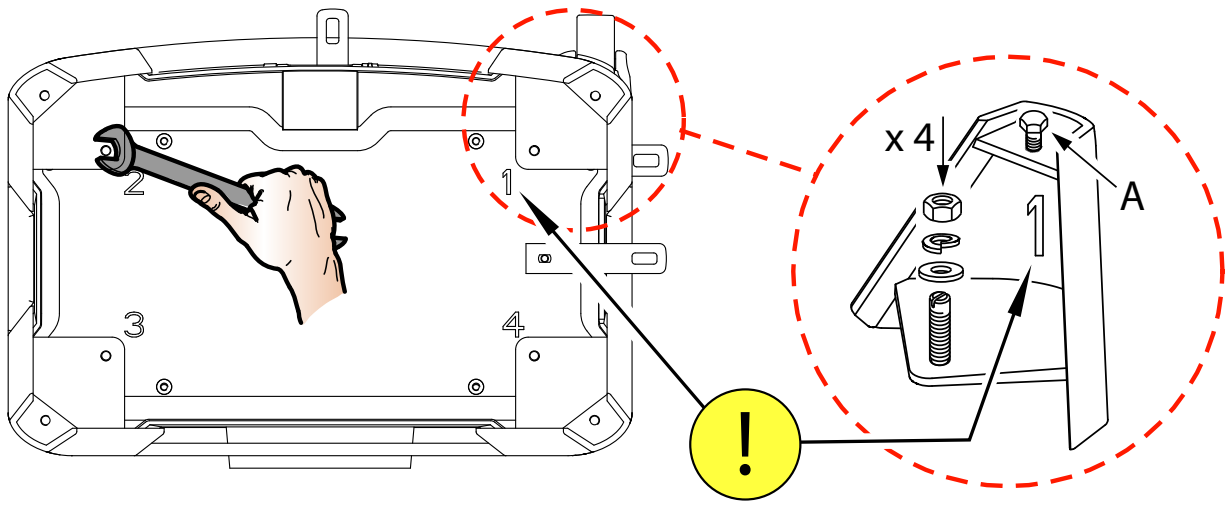


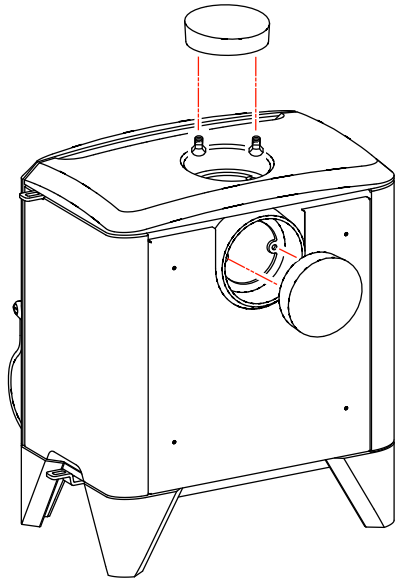
Table 1 - Dimensions	A	B	C	D	E	F	G	H	J	K
Langbrook 5kw	600	500	30	250	105	368	23	110	472	127
Note: All Dimensions in mm. Dimensions stated may be subject to a slight ± variation. (25.4mm = 1")										

Table 2 - Technical Specification			Langbrook 5kw
Nominal heat output	Wood	kW	5.0
	Solid Fuel (Ancit)	kW	5.3
Efficiency	Wood	%	77.0
	Solid Fuel (Ancit)	%	82.5
CO Emission (@13% O_2)	Wood	%	0.32
	Solid Fuel (Ancit)	%	0.38
Flue Gas Temp	Wood	°C	306
	Solid Fuel (Ancit)	°C	249
Flue Gas Mass Flow	Wood	g/s	4.0
	Solid Fuel (Ancit)	g/s	3.3
Refuel Period		hr	1
Safe Distance to Combustibles	Sides	mm	500
	Rear	mm	650
Flue Outlet Size		mm / inch	127 / 5
Product Weight		kg	98.7
Additional Room Ventillation Required		cm²	see table 4

2



3



4

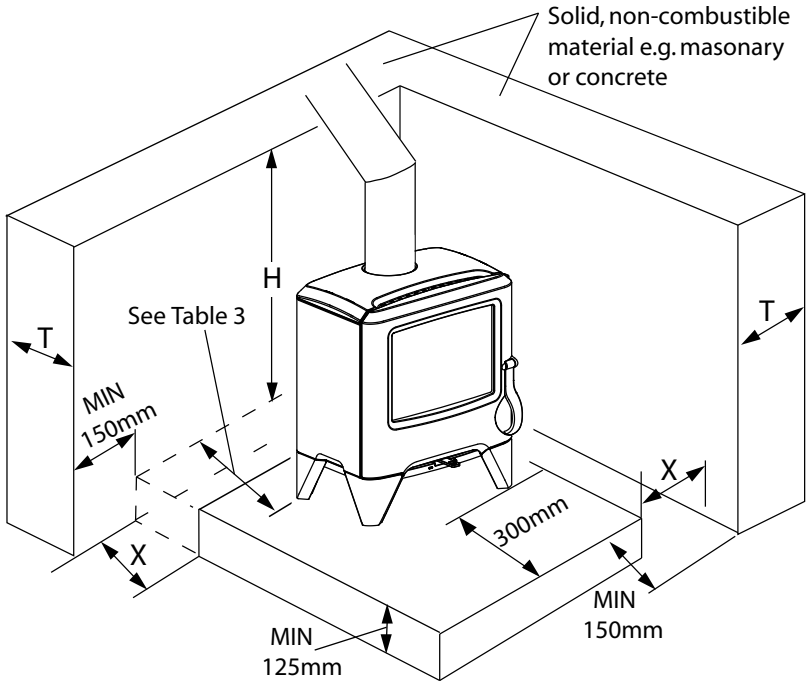
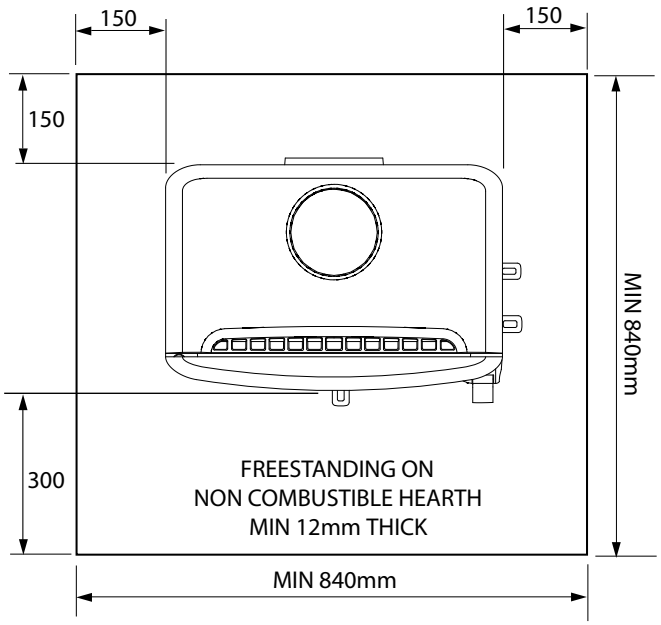


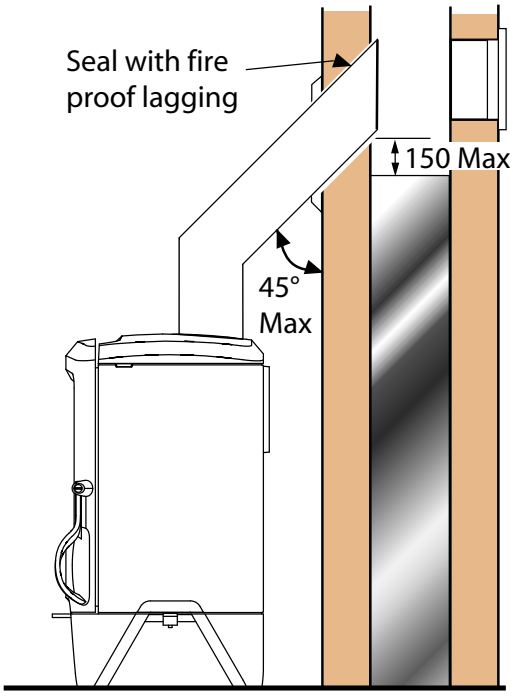
Table 3 - Position of Hearth & Appliance from adjacent walls

Hearth distance 'X' from wall	Appliance distance from walls	Min Wall Thickness 'T'	Min Wall height 'H'
0mm	0 - 50mm	200mm	Height of appliance +300mm or 1200mm from hearth (whichever is greater)
0mm	51 - 150mm	75mm	
0 - 150mm	150 - 300mm	75mm	
+150mm	+300mm	No Minimum Requirement	

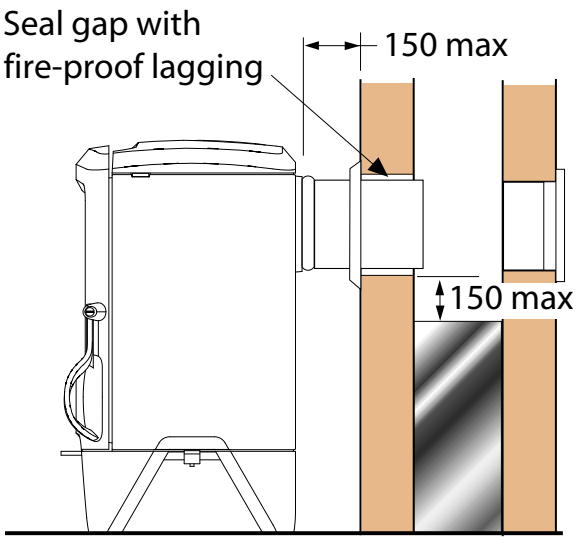
5



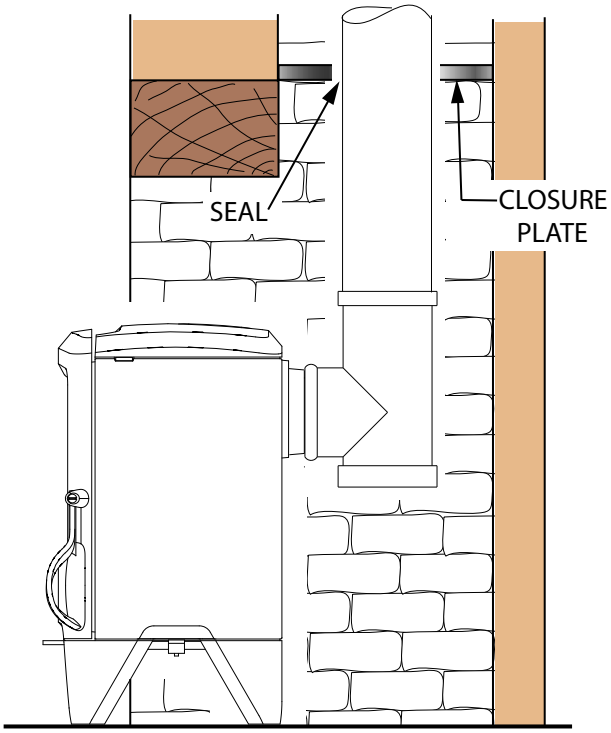
6



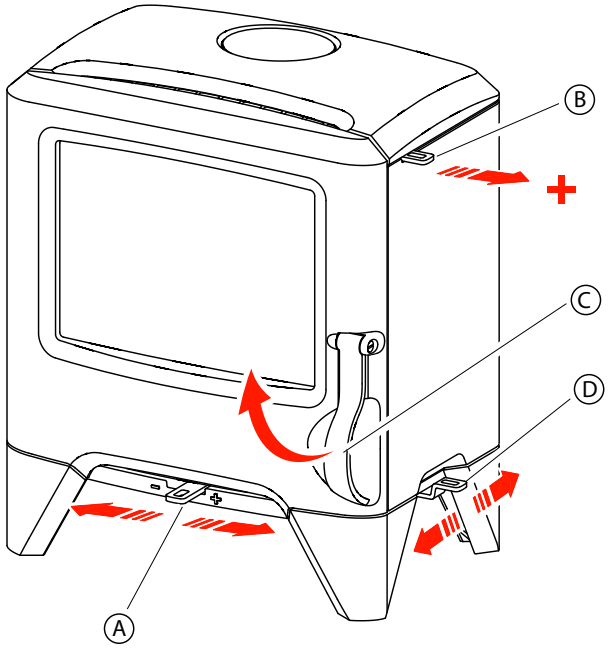
7


Seal gap with
fire-proof lagging
150 max
150 max

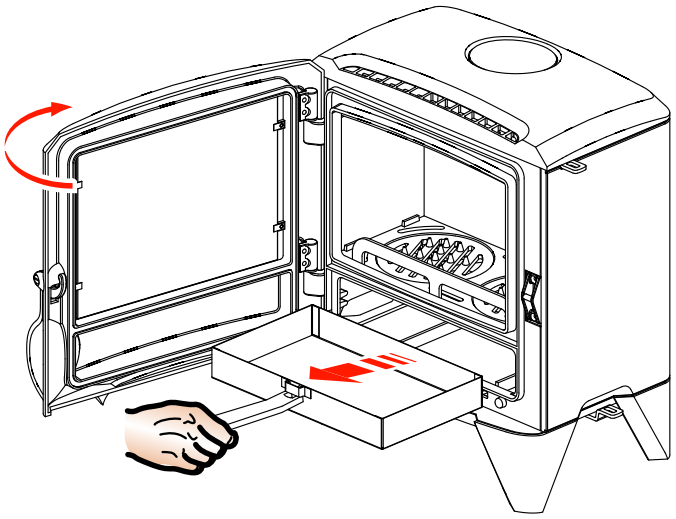
8


SEAL
CLOSURE
PLATE

9


B
+
C
D
A

10



Langbrook 5kW (LBK5)

IMPORTANT: THESE INSTRUCTIONS SHOULD BE READ CAREFULLY AND RETAINED FOR FUTURE REFERENCE

Important Safety Advice

Please read these instructions carefully before installing or using this appliance. Failure to do so may result in damage to persons and property.

Installation of this appliance must be carried out by a suitably qualified competent person in accordance with all Building Regulations, including those referring to Local Authority Bye-Laws, National and European Standards and Codes of Practice.

Do not install this appliance on a shared flue.

This appliance operates at very high temperatures and retains its heat for a period after use. Do not touch any surfaces while in use. All persons including children and the infirm should be warned of this and not allowed to touch any surfaces while in use. Please use a suitable fireguard to prevent contact when in use.

Do not place any photographs, paintings, TV's or other combustible items near the appliance as exposure to hot surfaces will cause damage. Maintain safe distances from combustibles in all cases in accordance with these instructions – please refer to installation.

The operator must use the tools provided. The mitten provided is a tool.

Do not fit an extractor fan in the same room as this appliance.

Ensure that there is adequate ventilation in the room in accordance with building standards. Do not obstruct any of the air inlets or outlets on the appliance.

A flue damper should not be fitted when burning solid fuels other than wood.

This appliance is for domestic heating use only in accordance with these operating instructions. Do not make any unauthorised changes to the appliance.

Only use recommended fuels. Do not burn petroleum coke fuels, household waste or plastic in this appliance.

Burn only fuels with a low moisture content - burning soft or wet fuels such as unseasoned timber or peat will only result in a build up of tar in the stove and the chimney and will cause staining of the glass.

Do not use flammable liquids to ignite the fire.

Avoid the use of aerosols in the vicinity of the stove when it is in operation.

Clean your chimney at least twice a year and clean the flue way weekly to ensure there are no blockages. Do not allow a build up of ash to occur in the ash pan as this will cause the grate to burn out prematurely.

Regular maintenance should be carried out by a Competent Engineer.

Health and Safety Precautions

Handling: Adequate facilities must be available for the unloading and handling of this appliance. This product is heavy and should be handled with care. When handling or servicing this stove care should be taken to avoid the possibility of personal injury. Use protective clothing.

Fire Cement/Glue: Some types of fire cement/glue are caustic and should not be allowed to come into contact with the skin. Use suitable protective gloves when handling. In case of contact, wash immediately with plenty of water.

Asbestos: This appliance contains no asbestos. If there is a possibility of disturbing asbestos as a result of installation then specialist guidance must be sought prior to installing.

Installation Instructions

General

These instructions give a guide for the installation of the stove but in no way absolves the installer from responsibilities to conform to all relevant standards relating to the installation of solid fuel appliances.

We recommend that for UK installations a HETAS registered installer should be used, who will be able to give a Certificate of Compliance that installation complies with Building Regulations. In Ireland a registered installer from the Irish Nationwide Fireplace Organisation should be used.

Please note that to the best of our abilities these instructions are correct at time of printing, however we cannot be held responsible for any differences in legislation which may occur in the future.

Assembly of the stove

To make the product easier for handling on installation, remove the baffle plate, side bricks, back brick and ashpan. Place these in a secure place to avoid damage. These must be refitted after installation. The legs and other fixings are packed in the ashpan for safe keeping in transport. Fix the legs to the underside of the product using the bolts provided **(Fig 2)**.

The stove is supplied ready for rear flue connection. For Top flue connection **(Fig 3)** remove the flue cap from the top plate by removing the screws on underside of top plate inside the stove. Reposition the flue cap on the rear flue outlet and tighten all fixing screws to ensure it is air tight.

Chimney

Before installing, check the chimney is in good condition; dry and free from cracks and obstructions. The diameter of the chimney flue should not be less than 150mm and not more than 230mm. If any of these requirements are not met, the chimney should be lined by a suitable method by a qualified person.

The chimney height and the position of the chimney terminal should conform to Building Regulations. If you have any doubts about the suitability if your chimney, consult your local dealer or stockist. The chimney must be swept before connection to the stove and swept every six months thereafter.

If there is no existing chimney then either a prefabricated block chimney or a twin walled insulated stainless steel flue to BS4543 can be used. These chimneys must be fitted in accordance with the manufacturers instructions and in compliance with Building Regulations.

This product must not be installed on a shared flue.

Flue Deposits

If the chimney was previously used as an open fire, it is possible that the higher flue gas temperatures generated by the stove may loosen deposits that were previously adhered to the inner surface of the flue pipe which could cause blockage of the flue pipe. We recommend that in this situation a second sweeping of the chimney should be carried out within one month of initial stove use after installation.

Flue Draught

The chimney should be checked before the stove is installed to ensure that there is adequate flue pull. The draught can be checked initially by using a smoke match close to the flue opening. If the chimney doesn't pull the smoke it may suggest that the chimney needs further attention. Any remedial work to the chimney flue should be carried out by a suitably Qualified Engineer.

A flue draught of minimum 12 Pascal to maximum 25 Pascal is required for satisfactory appliance performance. The flue draught should be checked under fire at high output and if it exceeds the recommended maximum a flue draught stabiliser (or flue damper as it is also known) must be fitted so the rate of burning can be controlled and prevent overfiring.

Room Ventilation

For safe operation this stove must be provided with combustion air supply in addition to normal room ventilation, in accordance with Building Regulations. Minimum ventilation requirements vary depending on whether the dwelling is considered to be of standard construction or of airtight construction, or if a flue draught stabiliser has been fitted. The required open air vent sizes are as follows:

Table 4 - Additional Room Ventilation Required	
Standard build dwellings {air permeability >5.0m³ /(h.m²)}	
No Flue Stabiliser	2 cm²
With Flue Stabiliser	18 cm²
Airtight build dwellings {air permeability ≤5.0m³ /(h.m²)}	
No Flue Stabiliser	29 cm²
With Flue Stabiliser	45 cm²

An extractor fan must not be used in the same room as this appliance.

Floor Protection & Installation Clearances

In all instances the stove should be positioned on a non-combustible hearth. The construction of the hearth must conform to Building Regulations, must be firm, non-combustible and capable of supporting the stove. Care should be taken to ensure the stove is level and the hearth is secure.

The stove can be installed in suitably sized recess, either purpose built or an existing fireplace. In this instance a solid constructional hearth of minimum 125mm must be used, including the thickness of the floor and any decorative top surface (e.g. tiling). We recommend a permanent free air gap of at least 150mm should be left around the sides where possible and 300mm around the top to obtain maximum heat output and for access to the rear of the stove. Place the product in the desired location on fireproof hearth taking note of installation clearances from adjacent walls **(Fig 4)**. Adjust the screws on the bottom of the feet to ensure the stove is level and steady **(see 'A' Fig 2)**.

The stove can also be installed freestanding in the room. In this instance a reduced thickness hearth may be used, which must be made from non-combustible board, sheet or tiles of minimum thickness12mm. **(Fig 5)** shows the minimum distances required from the hearth edge to the sides of the stove.

In all cases allow an apron of at least 300mm at the front of the stove in case of spills when de-ashing.

Table 5 shows the minimum safe distances to combustable materials which must be observed. Any surrounding combustible material should not exceed 80°C.

Table 5	**Sides**	**Rear**
Langbrook 5kW	500mm	650mm

Flue Pipes

The flue pipe used to connect to the stove should be made of cast iron, 316 grade stainless steel or vitreous enamelled steel, nominal thickness 1.2mm. The diameter of the flue pipe should be 125mm (5") for the Langbrook 5kW model.

Connect the flue pipe to the stove making sure that it fits snugly into the base of the flue collar . Seal the collar and flue connection with fire cement or with other suitable high temperature sealant. Add flue sections as required; note that all flue sockets must face upwards. Ensure that the flue pipe end is no closer than 76mm to the side or rear of the chimney walls. It is essential that all connections between the stove and the chimney flue are sealed and made airtight.

Avoid using bends greater than 45° to the vertical **(Fig 6)**. All flue pipes should be as close to vertical where possible. For rear flue connection the length of the horizontal run of the flue pipe should not exceed 150mm **(Fig 7)**. Both chimney and flue pipe must be accessible for cleaning and if ALL parts of the chimney cannot be reached, a soot door must be fitted to enable this to be done.

This product should not be installed on a shared flue.

Existing Fireplace

An existing fireplace opening can be bricked up or sealed with a register plate, 2.5mm sheet steel or concrete. A short length of flue pipe may then be used to connect the stove to the chimney. Ideally the old fireplace should be filled in so that there is a smooth streamlined entry into the flueway. **(Fig 7)**

Typical installation for Inglenook Fireplaces

Inglenook fireplaces can have very large bore chimneys **(Fig 8)**. Check with your installer – you may need a stainless steel flexible flue liner for solid fuel fitting.

Flue Damper (Not Supplied)

When burning wood, a flue damper may be fitted to reduce the draught through the stove if the draught is too high. When the damper is set in the open position the chimney draws at full draught, increasing the volume of air flow through the stove and flue. Shutting the damper restricts the flow, slowing the rate of burning. The damper should be fitted to the stove flue and should be the same size as the flue pipe. As a rule it should be fitted no closer than 700mm from the flue outlet of the appliance.

A flue damper should not be fitted when burning solid fuels other than wood.

Commissioning

Upon completion of installation, the stove and flue system should be tested by a suitably qualified person to make sure it is safe for normal use. A smoke draw test should be completed to check for soundness of joints and seals and also that all smoke and fumes are taken from the appliance up the chimney and emitted safely.

First warm the flue with a blowlamp or similar for about 10 minutes. Place a lit smoke pellet on the centre of the grate with the air

controls open. Close the door – the smoke should be drawn up the flue and be seen to exit from the flue terminal. Complete the test with all windows and doors shut in the room where the appliance is fitted.

If a ceiling fan is present it must be operated on max for the duration of the test. If there are any extraction fans in adjacent rooms these too must be operated on maximum setting during the test with the interconnecting doors open. If any spillage occurs, recheck the suitability of the flue system making sure there is adequate air supply to the room (as per Building Regulations).

Light the appliance and slowly increase the temperature to operating levels. Open the main fire door when the appliance reaches normal operating condition and carry out a spillage test using a smoke match or pellet around the door opening. If any spillage occurs, open all windows, allow the fire to go out and recheck the flue system and ventilation.

Operating Instructions

Warning: The door and operating handles become hot when the stove is in use. For your safety use the glove provided.

Initial Firing of Stove

We recommend that you have two to three small fires before you operate your stove to maximum heat output. This is to allow the paint to cure and the castings to relax and consolidate location. We recommend this 'running in' procedure after long idle periods to preserve the life of the stove. During this you may notice an unpleasant smell. It is not toxic but for your own sake we would suggest that during this period you leave all doors and windows open.

Air Controls

Primary air is controlled via the sliding vents **(A - Fig 9)** in the bottom of the door; this provides a conventional air draught to the bed of the fire. (+) indicates more air, (-) indicates less air, (+) and (-) are marked on the primary and secondary air controls.

Secondary air is controlled via the sliding vent **(B - Fig 9)** above the door. It is this 'Airwash' that keeps a clean and uninterrupted view of the fire, also aiding in good secondary combustion of fuel and reducing emissions into the chimney and environment.

Lighting the Stove

Place fire lighters or paper and kindling on the grate. Light the fire at base leaving all air controls open. Allow the fuel to reach a steady glow across the grate and build the fire up gradually. Once you have a good fire established across the grate bed, further fuel can be added as required.

Running the Stove

When your fuel is well alight you can start to restrict the primary air intake. If you are only burning wood the primary air control can be fully closed. If you are burning solid fuel you will require more primary air. Your stove is burning with maximum efficiency when a bright fire is achieved using minimum air inlet.

The stove can be banked up for long periods. When burning solid fuel empty the ash pan. Open air controls and let the fire burn brightly for a short period. Refuel and close air controls; the exact setting required will depend on the fuel used and the chimney draw so some practice may be necessary. To revive the fire, open air controls until the fire is burning brightly, de-ash if necessary and refuel. Set air controls as required. The stove is not suitable for overnight burning.

Notes on Wood Burning

Wood burns best on a bed of ash and it is therefore only necessary to remove surplus ash from the grate occasionally. Burn only dry, well seasoned wood, which should have been cut, split and stacked for 12 months with free air movement around all sides of the stack to enable it to dry out. Burning wet or unseasoned wood will create tar deposits in the stove and chimney and will not produce a satisfactory heat output. When loading wood, make sure that the end grain of the wood in the stove is pointing away from the glass otherwise the moisture and gases coming from the end grain of the wood will dirty the glass.

Table 5 - Maximum log lengths	
Langbrook 5kW	350mm (14")

Notes on Solid Fuel burning (Other than Wood)

Always de-ash the grate before refuelling and do not let the ash build up to the underside of the grate bars. Solid fuel produces ash, which if allowed to build up will stifle the air flow through the grate and will eventually cause the fire to die. It is important it is to empty the ash pan after each firing of the stove. Air passing through the firebed cools the grate. Distortion or burning out of the grate bars is nearly always caused by ash being allowed to build up on the underside of the grate. With some solid fuels a residue of burnt fuel or clinker will accumulate on the grate. Allow the fire to go out periodically to remove this.

We recommend the majority of approved manufactured smokeless fuels. Note that different types of fuel will give different performances. Use as an incinerator for household waste is not recommended as fumes from plastic, etc will cause pollution to the atmosphere and will cause damage to the stove. Should any difficulties arise over fuel quality or suitability, consult your local supplier or contact the Solid Fuel Advisory Service.

Petroleum coke fuels or household waste should not be burned on this appliance.

De-Ashing

To de-ash the grate draw the riddle lever forwards and backwards with a slow positive action **(D - Fig 9)**.

The ash pan should be emptied each time after operating the stove so not to let build up of ash occur. Where possible, it is best to wait until the stove and ash has cooled before removing the ash pan. To remove, open the stove door by lifting the handle upward **(C - Fig 9)** then using the hand tool lift the ash pan out of the fire **(Fig 10).** For efficient burning of your appliance, make sure the grate is clear of burnt debris; e.g. nails, etc.

Shut down Periods

If shutting down the stove for long periods (e.g. for summer months) make sure that all ash is removed from the stove and that the chimney flue ways and baffle plate are brushed clean. When the stove is cold a vacuum cleaner may be used to remove any residual ash or soot. Close the door and leave all air inlets open fully. This action will ensure air circulation through the appliance and will help to avoid corrosion and condensation within the appliance during this shut down period.

Safety Notes for Your Guidance

FIRES CAN BE DANGEROUS.

Always use a fire guard in the presence of children, the elderly or the infirm. Inform all persons the dangers of high temperatures during operation of the appliance including the stove pipe.

Use operating tools provided.

DO NOT OVER FIRE.

It is possible to fire the stove beyond its design capacity. This could damage the stove, so watch for signs of over firing. If any part of the stove starts to glow red, the stove is in an over fire situation and the controls should be adjusted accordingly to reduce air intake. Never leave the stove unattended for long periods without adjusting the controls to a safe setting. Careful air supply control should be exercised at all times.

Warning - Fume Emissions

Properly installed and operated, this appliance will not emit fumes. Occasional fumes from de-ashing and refuelling may occur. Persistent fume emission must not be tolerated. If fume emission does persist, then the following immediate action must be taken:

1. Open doors and windows to ventilate the room.
2. Let the fire out, or eject and safely dispose of fuel from the appliance.
3. When the stove has cooled, check for chimney flue blockage and clean if required.

Do not attempt to relight the fire until the cause has been identified. If necessary seek professional advice.

General Maintenance

Baffle Plate: This should be removed at least once a month to prevent any build up of soot or ash, which could lead to blocked flue ways and dangerous fume emission. If the baffle plate is removed the chimney/flueway can be swept through the appliance.

Stove Body: The stove is finished with a heat resistant paint and this can be cleaned with a soft brush. Do not clean while the stove is hot, wait until it has cooled down. The finish can be renovated with a suitable brand of stove paint.

Glass Panels: Clean the glass panels when cool with a proprietary glass cleaner. Highly abrasive substances should be avoided as these can scratch the glass and make subsequent cleaning more difficult. Wet logs on heated glass, a badly aimed poker or heavy slamming of the doors could crack the glass panel. The glass will not fracture from heat.

Chimney: Check your chimney each year before starting to use your stove for the winter. Birds may have nested in the chimney or masonry may have cracked. Both chimney and flue pipe must be swept at least once a year by a Qualified Chimney Sweep.

To avoid a build up of soot on the baffle plate (the plate inside the stove above the grate) it must be removed and cleaned periodically. This plate locates the back and side firebricks so note its position before removal. To remove, lift the baffle plate and remove the side bricks; this will allow the plate to drop and aid removal. To replace, position baffle plate on back plate, lift plate and replace the side bricks, making sure it has located in position. This must be done when the stove is cold.

Troubleshooting

1. Poor heat output

a. Stove too small for room: Seek advice from a Qualified Heating Engineer as to (kW) output required for the room size. As a guideline the volume of the room in cubic feet divided by 500; e.g. room 15'x15'x8' would require 3.6kW approx.

b. Chimney and/or flue pipe restricted, room ventilation restricted: On installation these should have been checked but regular maintenance is necessary as conditions can change; e.g. soot build up, birds nesting, masonry fall, dust build up or furniture blocking vents.

c. Poor quality fuel: Only burn dry seasoned timber, soft woods have a lower heat output than hard woods per hour. Solid fuels vary in heat value; check with your coal merchant as to suitability.

2. Dirty Glass Panel

a. Generally caused by poor fuel quality, see (1c)

b. Use secondary air slide (Airwash) for glass panel

c. Fire burning too low, open air vents on stove to create hot fire; this may 'burn' glass clean.

d. If glass requires cleaning use glass cleaner recommended by your supplier; only use glass cleaner on cold glass. DO NOT USE any abrasives or scrapers as these will scratch glass and increase future tar build up making it harder to clean.

3. Unburnt Fuel in Firebox

Insufficient air reaching fuel. Open primary air slide, this will supply combustion air to burn fuel fully (unless it has reached a 'point of return'). Check if the ash pan is full and empty if required. De-ash with the riddler to make sure the grate is not blocked and check for jammed clinker or nails when the fire is out and the stove has cooled.

4. Smoke and Fumes Entering Room

These are very dangerous and must NOT be tolerated. Open window and allow fire to burn out. Seek expert advice immediately. DO NOT USE stove until the problem is solved.

5. Chimney Fire

Identified by loud roaring sounds, dense smoke and sparks emitting from chimney. Shut down the air supply by closing air vents, close stove door fully and call fire brigade immediately. Regular chimney maintenance will prevent chimney fires. Seek advice from a Qualified Chimney Sweep. Chimneys must be checked annually and more often when bitumas coal and poor quality smokey fuels are used.

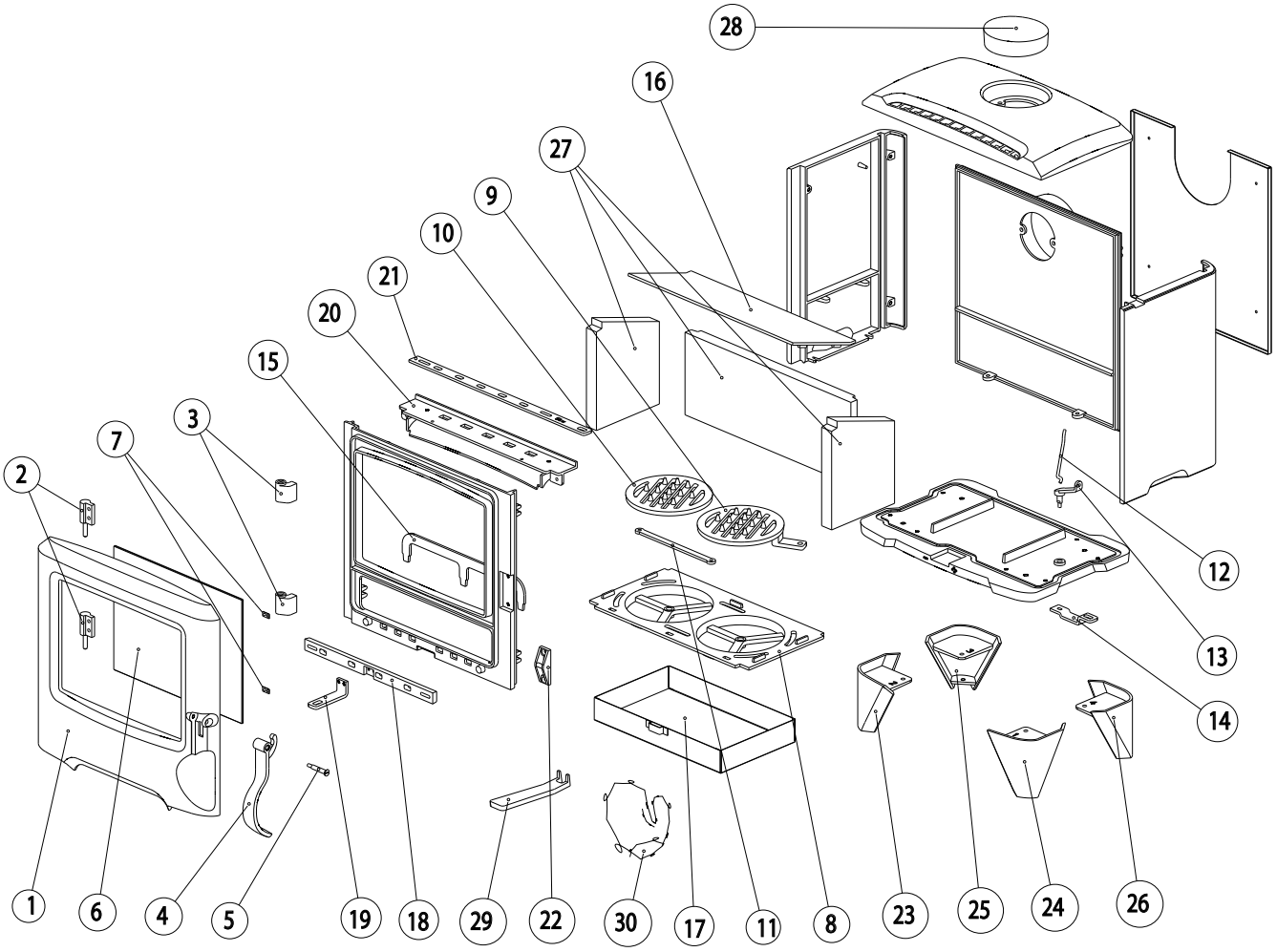
After Sales Service

Your Dimplex Stove is guaranteed against defects arising from faulty manufacture for 1 year subject to the following conditions. Failure to comply with these conditions will invalidate the gaurantee:

- The receipt must be kept as proof of purchase.
- Your Dimplex stove must be installed by suitably qualified individual (HETAS Engineer or equivalent) and upon installation a Certificate of Compliance must be presented.
- The guarantee is 1 year from date of purchase.
- The guarantee does not cover parts that are deemed to be replacable through normal usage of the stove. These include: glass panels, rope seals, bottom grate or firebars, ashpan, firebricks, cast iron liners, riddling lever, baffle plate, log guard.
- Only genuine Dimplex spare parts should be used. Parts that may need occasional replacement are: firebricks, ashpan, fire grate, log guard.

Should you require after sales service or should you need to purchase any spares, please contact the retailer from whom the appliance was purchased. Please do not return a faulty product to us in the first instance as this may result in loss or damage and delay in providing you with a satisfactory service. Please retain your receipt as proof of purchase.

Langbrook 5kW (LBK5)



LANGBROOK 5KW STOVE (LBK5) - SPARE PARTS

Item	Description	Part Number		Item	Description	Part Number
1	DOOR	3011102		16	BAFFLE PLATE	3011117
2	DOOR HINGE	3011103		17	ASHPAN	3011118
3	HINGE MOUNT	3011104		18	PRIMARY AIR SLIDE	3011119
4	DOOR HANDLE	3011105		19	PRIMARY AIR HANDLE	3011120
5	HANDLE PIN	3011106		20	AIRWASH	3011121
6	DOOR GLASS	3011107		21	AIRWASH SLIDE	3011122
7	GLASS FIXING BKT	3011108		22	DOOR CATCH	3011123
8	GRATE OUTER	3011109		23	FOOT 2 - FRONT RH	3011124
9	GRATE INNER LH	3011110		24	FOOT 1 - FRONT LH	3011125
10	GRATE INNER RH	3011111		25	FOOT 3 - REAR RH	3011126
11	GRATE BAR	3011112		26	FOOT 4 - REAR LH	3011127
12	CONNECTING ROD	3011113		27	BRICK ACCESSORY PACK (RH, LH & Rear Brick)"	3011128
13	RIDDLE BAR	3011114		28	FLUE CAP	3011129
14	RIDDLE LEVER	3011115		29	HAND TOOL	MF09007
15	LOG BAR	3011116		30	PROTECTIVE MITTEN	MF09036

DIMPLEX
MILLBROOK HOUSE
GRANGE DRIVE
HEDGE END
SOUTHAMPTON
SO30 2DF

TEL: 0845 600 5111
FAX: 01489 773050
WEBSITE: www.dimplex.co.uk

Republic of Ireland Tel: 01 842 4833

[c]A Division of GDC Group Ltd.
All rights reserved. Material contained in this publication may not be reproduced in whole or in part, without prior permission in writing of GDC Group Ltd.